

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE Group Art Unit Unknown

my signature.

Date of Signature

I, Julie Mallder, hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date of

Patent Application of

Andrew Bruce Holmes, et al.

Application No. 10/593,212

Confirmation No.: 7446

Filed: September 18, 2006

Examiner: Unknown

"METHODS OF AMINATION"

INFORMATION DISCLOSURE STATEMENT PURSUANT TO 37 C.F.R. § 1.97(b)

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The Examiner's attention is directed to the references which are listed on the attached Form PTO/SB/08A and PTO/SB/08B and copies of non-U.S. patent references are attached.

Citation of these references is respectfully requested.

No concession is made that these documents are prior art, and Applicant expressly reserves the right to antedate the documents as may be appropriate.

Respectfully submitted,

Charlene L. Yager Reg. No. 48,887

Reg. No. 40,007

TRU

File No. 065435-9084 US00 Michael Best & Friedrich LLP One South Pinckney Street P. O. Box 1806 Madison, WI 53701-1806 608.257.3501 Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute fo	r form 1449/PTO		Complete if Known	
	INFORMATION DISCLOSURE		Application Number	10/593,212
STATEMENT BY APPLICANT			Filing Date	September 18, 2006
			First named Inventor	Andrew Bruce Holmes
			Group Art Unit	Unknown
	(use as many sheets as necessary)		Examiner name	Unknown
	Sheet 1 of 1		Attorney Docket Number	065435-9084 US00
		J.S. Patent	Documents	
Examiner Initials	U.S. Patent Document Number	Nam	e of Patentee or Applicant of Cited Document	Date of Publication of Cited Document
	5,576,460		Buchwald et al.	11/19/1996
	6,156,933		Poliakoff et al.	12/5/2000
				·

	FOREIGN PATENT DOCUMENTS					
Examiner Initials	Country Code	Foreign Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Translation	English Abstract
	EP	0652202	Research Development Corporation of Japan	5/10/1995		
	wo	94/06738	Unichema Chemie BV et al.	3/31/1994		
	wo	94/20444	Valtion Teknillinen et al.	9/15/1994		
	wo	95/22591	Degussa et al.	8/24/1995		
	wo	96/01304	Paul Moeller Ledelses Og Ingen	1/18/1996		
	wo	02/051958	Johnson Matthey PCL et al.	7/4/2002		
	wo	02/28983	Cambridge Display Technology et al.	4/11/2002		
	wo	02/45868	University of Cambridge Technology et al.	6/13/2002		
	wo	03/009936	Holmes et al.	2/6/2003		
	wo	03/018531	Polychip Pharmaceuticals Pty Ltd. et al.	3/6/2003		

Examiner Signature	·	Date Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer. Patent and Trademark Office, Washington, DC 0231.

DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box Alexandria, VA 22313-1450.

PTO/SB/08B

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE ork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary) Sheet 5

Complete if Known				
Application Number	10/593,212			
Filing Date	September 18, 2006			
First Named Inventor	Andrew Bruce Holmes			
Group Art Unit	Unknown			
Examiner Name	Unknown			
Attorney Docket Number	065435-9084 US00			

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published. AALTEN, H.L. et al., "The copper catalysed reaction of sodium methoxide with aryl bromices. A mechanistic study leading to a facile synthesis of anisole derivatives," Tetrahedron (1989) 45(17):5565-5578 BAE, Y.C. et al., "Tailoring transparency of imageable fluoropolymers at 157nm by incorporation of hexafluoroisopropyl alcohol to photoresist backbones," Chem. Mater. (2002) 14:1306-1313 BAIKER, A., "Supercritical fluids in heterogeneous catalysis," Chem. Rev. (1999) 99:453-473
study leading to a facile synthesis of anisole derivatives," Tetrahedron (1989) 45(17):5565-5578 BAE, Y.C. et al., "Tailoring transparency of imageable fluoropolymers at 157nm by incorporation of hexafluoroisopropyl alcohol to photoresist backbones," Chem. Mater. (2002) 14:1306-1313
hexafluoroisopropyl alcohol to photoresist backbones," Chem. Mater. (2002) 14:1306-1313
BAIKER, A., "Supercritical fluids in heterogeneous catalysis," Chem. Rev. (1999) 99:453-473
, , , ,
CARROLL, M.A. et al., "Palladium-catalysed carbon-carbon bond formation in supercritical carbon dioxide," Chem. Commun. (1998) 1395-1396
COOPER, A.I., "Recent developments in materials synthesis and processing using supercritical CO2," Adv. Mater. (2001) 13:1111-1114
DEAGOSTINO, A. et al., "Palladium-catalyzed heck reaction on 1-alkoxy-1,3-dienes: a regioselective γ -arylation of α,β -unsaturated carbonyl compounds," Org. Lett. (2003) 5(21):3815-3817
EARLY, T.R. et al., "Palladium-catalysed cross-coupling reactions in supercritical carbon dioxide," Chem. Commun. (2001) 1966-1967
FURSTNER, A. et al., "Olefin metathesis in supercritical carbon dioxide," J. Am. Chem. Soc. (2001) 123:9000-9006
GORDON, R.S. et al., "Palladium-mediated cross-coupling reactions with supported reagents in supercritical carbon dioxide," Chem. Commun. (2002) 640-641

Examiner	Date	e
Signature	Cons	sidered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO					Complete if Known	
Substitute for form 1447B/110		Application Number	10/593,212			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT			OSURE	Filing Date	September 18, 2006	
			ICANT	First Named Inventor	Andrew Bruce Holmes	
~				Group Art Unit	Unknown	
	(use as many she	ets as necessary)	1	Examiner Name	Unknown	
Sheet	2	of	5	Attorney Docket Number	065435-9084 US00	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
	HALLS, J.J.M. et al., "Efficient photodiodes from interpenetrating polymer networks," Nature (1995) 376:498-500
	HARTWIG, J.F., "Transition metal catalyzed synthesis of arylamines and aryl ethers from aryl halides and triflates: scope and mechanism," Angew. Chem. Int. Ed. (1998) 37:2046-2067
	HOGGAN, E.N. et al., "Spin coating and photolithography using liquid and supercritical carbon dioxide," Polym. Prep. Am. Chem. Soc. Div. PMSE (1999) 81:218
	JESSOP, P.G. et al., Chemical Synthesis Using Supercritical Fluids, Wiley-VCH: Weinheim (1999)
	KISSLING, R.M. et al., "Recent developments in the use of N-heterocyclic carbenes: applications in catalysis," (2003) Chapter 27, 323-341
	KITANI, A. et al., "'Polyaniline': formation reaction and structure," Synthetic Metals (1987) 18:341-346
	KUWABARA, Y. et al., "Thermally stable multilayered organic electroluminescent devices using novel starburst molecules, 4,4',4"-tri(N-carbazolyl)triphenylamine (TCTA) and 4,4',4"-Tris(3-methylphenylphenylamino)triphenylamine (m-MTDATA), as hole-transport materials," Adv. Mater. (1994) 6(9):677
	LEY, S.V. et al., "Polyurea-encapsulated palladium(II) acetate: a robust and recyclable catalyst for use in conventional and supercritical media," Chem. Commun. (2002) 1134-1135
	LINDLEY, J., "Copper assisted nucleophilic substitution of aryl halogen," Tetrahedron (1984) 40(9):1433-1456
	LINDLEY, J., "Copper assisted nucleophilic substitution of aryl halogen," Tetrahedron (1984) 40(9):14.

Examiner	Date
Signature	Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Complete if Known		
				Application Number	10/593,212	
			OSURE	Filing Date	September 18, 2006	
			ICANT	First Named Inventor	Andrew Bruce Holmes	
				Group Art Unit	Unknown	
	(use as many she	ets as necessary))	Examiner Name	Unknown	
Sheet	3	of	5	Attorney Docket Number	065435-9084 US00	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
	LU, FL. et al., "Phenyl-capped octaaniline (COA): an excellent model for polyaniline," J. Am. Chem. Soc. (1986) 108:8311-8313
	MACDIARMID, A.G. et al., "Polyaniline: a new concept in conducting polymers," Synthetic Metals (1987) 18:285-290
	MACDIARMID, A.G. et al., "Polyanilines: a novel class of conducting polymers," Faraday Discuss. Chem. Soc. (1989) 88:317-332
	MACDIARMID, A.G. et al., "The polyanilines: potential technology based on new chemistry and new properties," Science and Applications of Conducting Polymers; Hilger: New York (1991) 117-127
	OAKES, R.S. et al., "The use of supercritical fluids in synthetic organic chemistry," J. Chem. Soc. Perkin Trans. (2001) 1:917-941
	PAINE, A.J., "Mechanisms and models for copper mediated nucleophilic aromatic substitution. 2. A single catalytic species from three different oxidation states of copper in an Ullmann synthesis of triarylamines," J. Am. Chem. Soc. (1987) 109:1496-1502
	RAY, A. et al., "Polyaniline: doping, structure and derivatives," Synthetic Metals. (1989) 29:E141-E150
	SHEZAD, N. et al., "Pd-catalysed coupling reactions in supercritical carbon dioxide and under solventless conditions," Green Chem. (2002) 4:64-67
	SHEZAD, N. et al., "Pd-catalyzed coupling reactions in supercritical carbon dioxide," Chemical Industries (Dekker) (2001) 82:459-464

Examiner	Date	
Signature	Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known		
				Application Number	10/593,212	
			OSURE	Filing Date September 18, 2006		
			ICANT	First Named Inventor	Andrew Bruce Holmes	
				Group Art Unit	Unknown	
				Examiner Name	Unknown	
Sheet	4	of	5	Attomey Docket Number	065435-9084 US00	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.				
	SMITH, C.J. et al., "Palladium catalysed aryl amination reactions in supercritical carbon dioxide," Org. Biomol. Chem. (2005) 3:3767-3781				
	SMITH, C.J. et al., "Palladium catalyzed cross-coupling reactions of silylamines," Chem. Commun. (2004) 1976-1977				
	STOLKA, M. et al., "Hole transport in solid solutions of a diamine in polycarbonate," J. Phys. Chem. (1984) 88:4707-4714				
	STRUKELJ, M. et al., "Organic multilayer white light emitting diodes," J. Am. Chem. Soc. (1996) 118:1213-1214				
	SUNDARARAJAN, N. et al., "Supercritical CO2 processing for submicron imaging of fluoropolymers," Chem. Mater. (2000) 12:41-48				
	TAMAO, K. et al., "Introduction to cross-coupling reactions," Topics in Curr. Chem. (2002) 219:1-9				
	UETA, E. et al., "Glass formation and phase transition of novel π-electron starburst molecules, 1,3,5-tris(phenyl-2-thienylamino)benzene and 1,3,5-tris(phenyl-3-thienylamino)benzene," Chem. Lett. (1994) 2397-2400				
	VACHON, D. et al., "Polyaniline is poly-para-phenyleneamineimine: proof of structure by synthesis," Synthetic Metals (1987) 18:297-302				
	WEINGARTEN, H., "Ullmann condensation," J. Org. Chem. (1964) 29:975-977				

Examiner	Date	
Signature	Considered	*

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO				Complete if Known		
				Application Number	10/593,212	
INFOR	INFORMATION DISCLOSURE			Filing Date September 18, 2006		
STATEMENT BY APPLICANT			ICANT	First Named Inventor	Andrew Bruce Holmes	
				Group Art Unit	it Unknown	
	(use as many sheets as necessary)			Examiner Name	Unknown	
Sheet	5	of	5	Attorney Docket Number	065435-9084 US00	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS						
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.					
	WELLS, S.L. et al., "CO2 technology platform: an important tool for environmental problem solving," Angew. Chem. Int. Ed. (2001) 40:518-527					
	WOLFE, J.P. et al., "Rational development of practical catalysts for aromatic carbon - nitrogen bond formation," Accounts of Chem. Res. (1998) 31(12):805-818					
	YANG, B.H. et al., "Palladium-catalyzed amination of aryl halides and sulfonates," J. Organometallic Chem. (1999) 576:125-146					

Examiner	•	Date	
Signature		Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450; Alexandria, VA 22313-1450.